CLAIMS

1. A catalyst for a water gas shift reaction characterized in that at least platinum is supported on a metal oxide carrier.

2. The catalyst for the water gas shift reaction according to claim 1 characterized in that the metal oxide carrier is at least one selected from the group consisting of zirconia, alumina, titania, silica, silica-magnesia, zeolite, magnesia, niobium oxide, zinc oxide and chromium oxide.

3. The catalyst for the water gas shift reaction according to claim 1 ~~or 2~~ characterized in that an amount of supported platinum is between 0.1 % by weight and 10.0 % by weight based on a weight of the metal oxide carrier.

4. The catalyst for the water gas shift reaction according to claim 1 ~~any one of claims 1 to 3~~ characterized in that rhenium in addition to platinum is further supported on the metal oxide carrier.

5. The catalyst for the water gas shift reaction according to claim 4 characterized in that an amount of supported rhenium is between 0.1 % by weight and 10.0 % by weight based on a weight of the metal oxide carrier.

6. The catalyst for the water gas shift reaction according to claim 1 ~~any one of claims 1 to 5~~ characterized in that at least on metal selected from the group consisting of

yttrium, calcium, chromium, samarium, cerium, tungsten, neodymium, praseodymium, magnesium, molybdenum and lanthanum is further supported on the metal oxide carrier in addition to platinum and rhenium which is optionally present.

7. The catalyst for the water gas shift reaction according to claim 6 characterized in that an amount of said supported metal is between 0.1 % by weight and 10.0 % by weight based on a weight of the metal oxide carrier.

8. The catalyst for the water gas shift reaction according to ~~any one of claims 1 to 7~~ claim 1 characterized in that the catalyst has been subjected to a hot water treatment after supporting platinum and optional other metal on the metal oxide carrier.

9. A method for removing carbon monoxide in a hydrogen gas characterized in that the hydrogen gas which contains carbon monoxide is contacted with a catalyst for a water gas shift reaction in which catalyst at least platinum is supported on a metal oxide carrier.

10. The method for removing carbon monoxide characterized in that the catalyst for the water gas shift reaction according to any one of claims 1 to 8 is used.

11. A fuel cell generation system characterized in that a hydrogen gas which contains carbon monoxide is contacted with a catalyst for a water gas shift reaction in

which catalyst at least platinum is supported on a metal oxide carrier so as to remove carbon monoxide from the hydrogen gas, which is supplied to a fuel cell.

12. The fuel cell generation system according to claim 11 wherein the catalyst for the water gas shift reaction according to any one of claims 1 to 8 is used.